



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,134	12/27/2000	Gilbert Neiger	042392.P9770	8719
59796 7590 11/19/2009 INTEL CORPORATION c/o CPA Global P.O. BOX 52050 MINNEAPOLIS, MN 55402			EXAMINER PYZOCHA, MICHAEL J	
			ART UNIT 2437	PAPER NUMBER
			MAIL DATE 11/19/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/752,134

**Applicant(s)**

NEIGER ET AL.

**Examiner**

MICHAEL PYZOCHA

**Art Unit**

2437

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9 and 31-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9 and 31-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C2)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 9 and 31-40 are pending.
2. Amendment filed 09/03/2009 has been received and considered.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 9 and 31-40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Each of the independent claims now state that the determining step is performed within the processor mode. However, the specification does not state in which mode the determination is made. Therefore, claims 9 and 31-40 fail to comply with the written description requirement.

***Specification***

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Each of the independent claims now state that the determining step is performed within the processor mode. However, the specification

does not state in which mode the determination is made. Therefore, the specification fails to provide proper antecedent basis for the claims subject matter.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9 and 31-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson (US 5522075) in view of Flynn, Jr. (US 20020069335).

As per claims 9, 33 and 36, Robinson discloses running guest software in a processor mode that enables the guest software to operate at a privilege level intended by the guest software (Col 14, lines 12-15); identifying an attempt of the guest software to perform an operation restricted by said processor mode (Col 12, lines 50-53); determining that the attempt of the guest software would fail if the guest software was running outside said processor mode (Col 12, lines 20-60); allowing the guest software to attempt the operation in response to determining that the attempt would fail (Col 12, lines 20-60); and transferring control over the operation to an operating system running within said processor mode in response to the guest software attempting the operation (see column 12 lines 20-60 and column 7 lines 5-42).

Robinson fails to explicitly disclose allowing the guest software to attempt the operation within said processor mode in response to determining that the attempt would fail if the guest software was running outside said processor mode.

However, Flynn, Jr. teaches determining if guest software would fail outside of the virtual machine and having the control program of the virtual machine either return the interrupt back to the virtual machine or handle it outside of the virtual machine (see paragraphs [0009] and [0010]).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the processing of the Flynn Jr. system in the Robinson system.

Motivation to do so would have been to allow the interrupts to be correctly handled by the system (see Flynn Jr. paragraphs [0009] and [0010]).

As per claims 31, 34, 37, and 40, the modified Robinson and Flynn Jr. system discloses determining that the attempt of the guest software would fail includes determining that the guest software is running with insufficient privilege to perform the operation (see Robinson column 12 lines 20-60).

As per claims 32, 35, 38 and 39, the modified Robinson and Flynn Jr. system discloses exiting said processor mode to transfer control over the operation to a virtual machine monitor running outside said processor mode in response to determining an attempt would succeed (see Robinson column 12 lines 20-60 and Flynn Jr. paragraphs [0009] and [0010]).

### ***Response to Arguments***

8. Applicant's arguments filed 09/03/2009 have been fully considered but they are not persuasive. Applicant argues (see page 5) that Flynn describes a control program gaining control for the determining and therefore cannot teach that the determining is performed within the processor mode.

With respect to Applicant's argument that Flynn describes a control program gaining control for the determining and therefore cannot teach that the determining is performed within the processor mode, Flynn describes (see paragraphs [0009] and [0010]) that a control program sends instruction to a processor to be executed by the processor (i.e. executed in a processor mode). The processor then determines whether the instruction can be executed properly given the current privilege and issues an interrupt to show the control program that it was determined that it would fail in the processor mode due to a lack of the proper privilege. In other words, the processor executes the instruction and issues an interrupt (if the instruction would fail) or returns the result of the execution (if the instruction would not fail) based on the determination in this processor mode if the instruction would fail. Therefore, the modified Robinson and Flynn system teaches all of the limitations of claims 9 and 31-40.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PYZOSKA whose telephone number is (571)272-3875. The examiner can normally be reached on Monday-Thursday, 7:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Pyzocha/  
Examiner, Art Unit 2437

/Emmanuel L. Moise/  
Supervisory Patent Examiner, Art Unit 2437